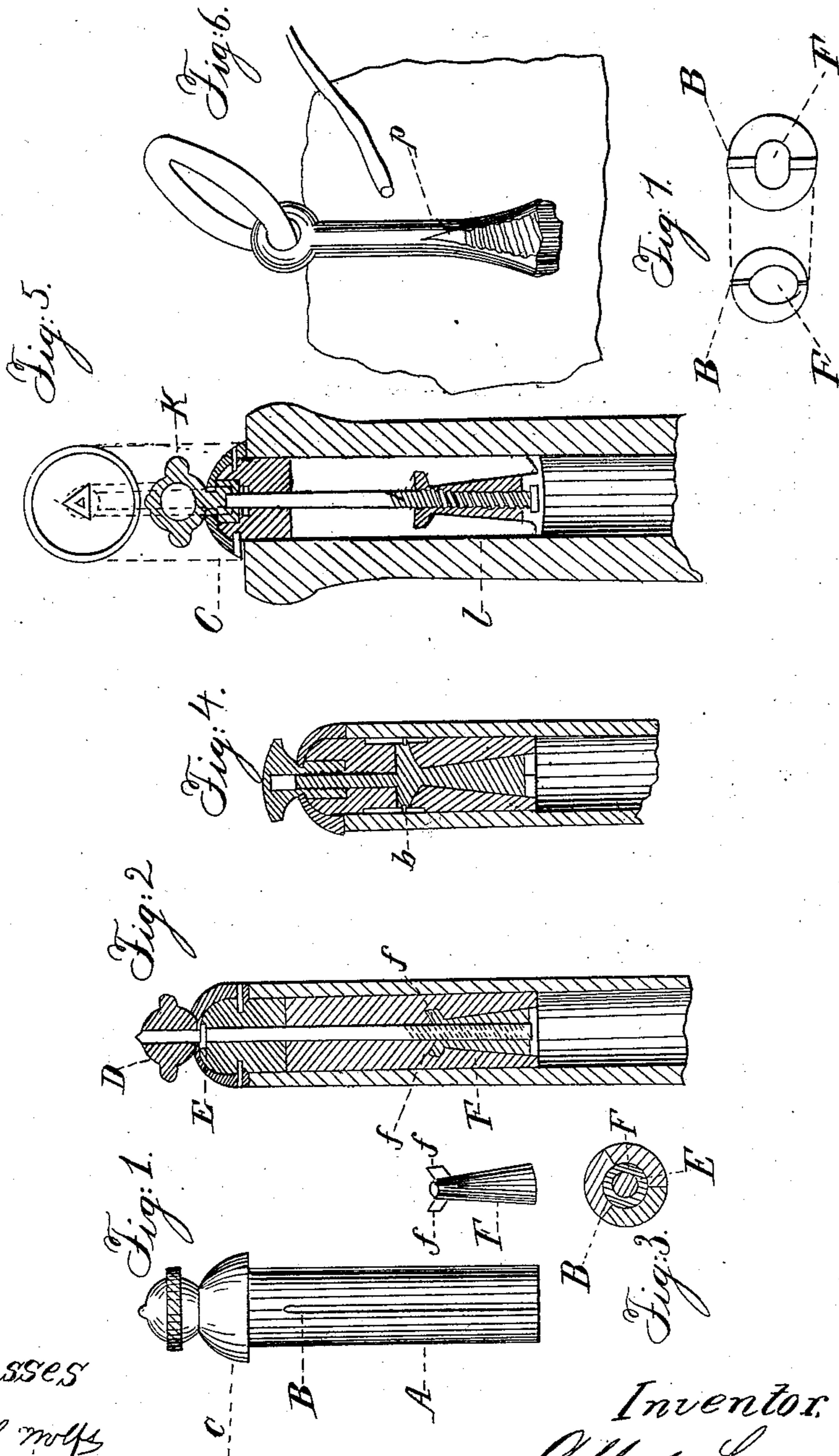


A. TRACY.
Tompion and Valve.

No. 34,705.

Patented Mar. 18, 1862



Witnesses
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UNITED STATES PATENT OFFICE.

ALBERT TRACY, OF THE UNITED STATES ARMY.

IMPROVEMENT IN TOMPIONS FOR FIRE-ARMS.

Specification forming part of Letters Patent No. **34,705**, dated March 18, 1862.

To all whom it may concern:

Be it known that I, ALBERT TRACY, of the United States Army, have invented a new and useful Improvement in the Method of Constructing Tompions for Small-Arms and Cannon; and I do hereby declare that the following is a full and exact description thereof, reference being had to the drawings, and to the letters of reference marked thereon.

It has long been a difficulty, held almost insuperable, to construct a tompion in such a manner as that the wear and friction of frequent insertion, together with shrinkage of material, &c., would not allow of its dropping from its place upon a light jar or shock, or even upon the reversing the piece, muzzle downward, as in the case of "reversing arms," and the like, with a musket in the hands of the soldier. My method of constructing a tompion overcomes, as I conceive, the objection above named, together with most others, fully.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

Figure 1 of the drawings represents a perspective view. Fig. 2 is a longitudinal section. Fig. 3 is an end view of the bottom. Figs. 4 and 5 are designed to show modifications of the principles of construction, with the addition in Fig. 5 of a key for use with tompions for cannon.

Letter A, Fig. 1, indicates the body or shaft of the tompion, the same being of wood or other elastic material. It is cut lengthwise across its center, with one or more slots from the bottom end toward a given point near the top B.

Letter C indicates the cap of the tompion; letter D, the head-piece. The body of the tompion, Fig. 2, is also perforated upon the line of its axis, so as to admit the shaft of the screw E, inserted through the metallic cap C, (where it is held by a shoulder or pin,) and made to enter by its thread the lesser end of the wedge F. The head-piece D being fitted and made fast to the shaft of the screw at the top, the latter is in condition to operate. Two or more flanges or wings, *f f*, extend from the sides of the wedge F, near the smaller end or elsewhere, into the slots of the tompion, thus preventing it from turning in the place hollowed to suit it. The wedge may also be made in a triangular, elliptic, or other similar

form, and be thus prevented from turning in its place without the use of flanges.

It is plain that the wedge F, being drawn inward by the action of the screw E, the base of the tompion is made to expand. It is equally plain that the wedge F being forced back again, or driven from the interior of the tompion by the screw in reverse action, the body A is relieved from its expansion and left free to contract, resuming at last its original diameter and proportions. Thus, by the alternate action of the screw, producing expansion or allowing a contraction in the body of the tompion, as aforesaid, the same is at once tightened in its place or rendered easy to withdraw.

In the modification shown in Fig. 4 the screw is made to enter and operate in the head-piece, the wedge being formed upon the shaft, and a band, *b*, attached to the flanges to compel a contraction in the body of the tompion when the wedge shall be driven downward to the base.

In adapting the tompion to field or ship guns or other heavy ordnance, Fig. 5, the body may be covered with leather, *l*, gutta-percha, woolen, or other desirable material. The key *k* is also adapted to the end of the shaft E, in this case at the point of its entrance through the cap C, the head-piece being dispensed with.

By the application of the key to turn the screw, the tompion is tightened in the bore of the piece. The key being then withdrawn, the tompion is left fast, until the reapplication of the key shall relieve it and allow its withdrawal. By this means the bore is not only secured from damp, &c., but the whole piece may be temporarily disabled from service in case of exigency requiring it.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The tompion for small-arms and cannon, as shown in Figs. 1 and 2, and substantially as hereinbefore described.

2. The modification shown in Fig. 4, substantially as above described.

3. The tompion as claimed in the first and second claims, in combination with the removable key, substantially as above described, and shown in Fig. 5 of the drawings.

Witnesses: ALBERT TRACY.

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